UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 2 2015

CERTIFIED MAIL 7014 2870 0000 3318 0097
RETURN RECEIPT REQUESTED

City of Calhoun
Attn: Mr. Jerry Crawford
Director, Wastewater Department
700 West Line Street
Calhoun, Georgia 30701

Re: Notice of Violation
City of Calhoun
National Pollutant Discharge Elimination System Permit No.: GA0030333
U.S. Environmental Protection Agency and Georgia Environmental Protection Division
Compliance Evaluation Inspection

Dear Mr. Crawford:

The purpose of this letter is to advise the City of Calhoun (City) that the United States Environmental Protection Agency Region 4, has reviewed the information submitted by the City to the EPA on October 16, 2013, in response to the EPA's information request letter issued pursuant to Section 308 of the Clean Water Act (CWA), 33 U.S.C. § 1318. The EPA has also reviewed the updated Sanitary Sewer Overflow (SSO) data submitted by the City to the EPA.

Enclosed with this letter is a copy of a Compliance Evaluation Inspection (CEI) conducted by the EPA and the Georgia Environmental Protection Division (EPD) on December 18, 2014, of the City's Wastewater Collection and Transmission System (WCTS). The objective of this CEI was to assess the City's compliance with the CWA and its National Pollutant Discharge Elimination System (NPDES) permit. Additionally, the EPA evaluated City's Management, Operations and Maintenance (MOM) programs related to its WCTS. The inspection results are summarized in the enclosed CEI report.

Based upon review of the information submitted and the information gathered pursuant to the CEI, the EPA has determined that the City has violated the CWA and the NPDES permit as follows:

During the period from September 27, 2008, to August 28, 2013, the City had two Sanitary SSO totaling 6,500 gallons of untreated sewage that discharged from the City's WCTS to navigable waters of the United States as defined by Section 502 of the CWA, 33 U.S.C. § 1362. Such SSOs were not authorized by the NPDES permit and are therefore violations of Section 301(a) of the CWA, 33 U.S.C. § 1311(a). Such SSOs are also indicative of the City's violation of Part II, Section A.1 of the City's NPDES Permit No.: GA0030333 which requires the City to properly operate and maintain its facility.

The EPA has decided not to initiate an enforcement action at this time. However, the City's future progress in developing and implementing written MOM programs, continued rehabilitation of the WCTS and progress towards eliminating SSOs will determine if future EPA enforcement actions are warranted. The EPA will monitor the City's progress in developing and implementing MOM programs and WCTS rehabilitation over the next two years.

Until compliance with the CWA is achieved, the City is considered to be in violation of the CWA and subject to enforcement action pursuant to Section 309 of the CWA, 33 U.S.C. § 1319. This Section provides for the issuance of administrative penalty and/or compliance orders and the initiation of civil and/or criminal actions.

If you have any questions regarding this Notice of Violation, please contact Mr. Richard Elliott, of my staff, at (404) 562-8691 or via email at elliott.richard@epa.gov. You may address written correspondence to Mr. Elliott at the above address on the letterhead.

Sincerely,

James D. Giattina
Director
Water Protection Division

cc: Mr. Lewis Hays
Georgia Environmental Protection Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4
Water Protection Division
Clean Water Enforcement Branch

COMPLIANCE EVALUATION INSPECTION REPORT

City of Calhoun Water& Wastewater Department
Gordon County
Georgia
NPDES Permit No. GA0030333

Facility Address:
700 West Line Street
Calhoun, Georgia 30701

Inspection Dates:
December 18, 2014

Inspectors:
Richard Elliott, Enforcement Officer, EPA Region 4
Steve Merchant, Environmental Specialist, EPD

Inspection Report Prepared by:
Richard Elliott, P.E.

February 20, 2015

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ABBREVIATIONS AND ACRONYMS

CEI	Compliance Enforcement Inspection
CMOM	Capacity, Management, Operation, and Maintenance
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	United States Environmental Protection Agency
FOG	Fats Oils and Grease
GIS	Geographic Information System
GPM	Gallons per Minute
I/I	Infiltration and Inflow
ICIS	Integrated Compliance Information System
MGD	Million Gallons per Day
MOM	Management, Operation, and Maintenance
NPDES	National Pollutant Discharge Elimination System
POTW	Publicly Owned Treatment Works
PS	Pump Station
RDII	Rain Derived Infiltration and Inflow
SORP	Sewer Overflow Response Plan
SSES	Sanitary Sewer Evaluation Survey
SSO	Sanitary Sewer Overflow
STP	Sewer Treatment Plant
EPD	Georgia Environmental Protection Division
WCTS	Collection and Transmission System
WWTP	Wastewater Treatment Plant

I. OVERVIEW

The City of Calhoun's (the City) Water and Wastewater Department provides drinking water and sanitary sewer services to approximately 11,800 residents in the City of Calhoun, Georgia. The service area is approximately 12 square miles. The City is responsible for 136 miles of gravity sewer, 10 Pump Stations (PS) and a Wastewater Treatment Plant (WWTP) with a design flow of 16.0 Million Gallon per day (MGD) and an average flow of 4.7 MGD. The City also manages two potable Water treatment Plants, 830 miles of water mains and 15 storage tanks.

On September 27, 2013, the EPA sent a Information Request Letter (308 Letter) pursuant to Section 308 of the Clean Water Act (CWA), requesting information related to Sanitary Sewer Overflows (SSOs) from the City's Wastewater Collection and Transmission System (WCTS). The EPA received the City's response, dated October 16, 2013, to EPA's 308 Letter on October 21, 2013.

The EPA conducted a Compliance Evaluation Inspection (CEI) of the City's sewer system on December 18, 2014. The purpose of this CEI was to evaluate compliance with the Clean Water Act (CWA) as it relates to SSOs from the sewer system and to assess the City's MOM programs. Additionally, this compliance inspection was intended to examine the causes and potential corrective actions for SSOs from the WCTS.

During the inspection, the EPA requested written documentation of any MOM programs that the City may use to operate and maintain its WCTS. The EPA also discussed inspection and maintenance records, interviewed management personnel and visited various sites in the WCTS, including Paul Lusk and Timber Ridge PS, the manhole where the most recent SSOs occurred as well as the Wastewater Treatment Plant. This report describes EPA's findings, identifies areas that need to be addressed and presents preliminary recommendations.

II. OBJECTIVES

The specific objectives of the inspection were to assess City's compliance with the CWA, evaluate reported SSOs, assess the MOM programs, where implemented, and to examine the causes of SSOs in the sewer system.

III. INVESTIGATION METHODS

The investigation included:

- Review of the Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES) federal database, state documents and the NPDES Permit;
- Review of the NPDES permit and related documents;
- Review of the City's response the EPA's 308 Letter;
- Interviews with the City's Wastewater Division personnel; and,
- Visual inspection.

IV. REGULATORY SUMMARY

The Georgia Environmental Protection Division (EPD) is authorized under the CWA to implement the NPDES program in the State of Georgia. As a part of this implementation, EPD provides oversight of the efficacy of operation and maintenance of the WCTS associated with all NPDES permits. The WWTP operated by the City is authorized by EPD under NPDES permit No. GA0030333 to discharge treated effluent into the Oostanaula River.

SSOs that impact waters of the U.S. are prohibited based on Sections 301 and 402 of the CWA which generally prohibits the discharge of pollutants by any person unless authorized by an NPDES permit. Part II Section A.1 of the permit, states that the permittee shall maintain and operate efficiently all treatment and control facilities and related equipment installed or used by the permittee to achieve compliance. The WCTS is included in the "equipment installed" that the NPDES permit mentions. Further, Part II Section A.11 defines a "spill" and sets out the reporting requirements placed on the permittee should such an event occur. Any release from the sewer system is therefore a violation of this section of the permit.

V. INSPECTION SUMMARY AND FINDINGS

The EPA performed a pre-inspection evaluation and an on-site inspection of the WCTS. The pre-inspection evaluation of City's WCTS consisted of examining historic records submitted by the facility to EPD as well as a review of the information the City submitted in response to a CWA Section 308 information request from the EPA. This section will provide a summary of both means of evaluation as well as any recommendations to the facility to improve the WCTS performance.

A. Analysis of SSOs

Discharges to waters of the United States from sanitary sewer systems are prohibited unless authorized by an NPDES permit. In addition, overflows from the sewer system that do not reach waters of the United States can be indicative of a failure to comply with the proper operation and maintenance provisions of Part II Section A.1 of the NPDES permit.

The City of Calhoun owns and operates a WWTP that treats all the wastewater produced in the City and some parts of Gordon County. The City reported a total of 2 SSOs that amounted to an annual average of 0.2 SSOs per 100 miles of sewer per year. The average volume of SSO per year per 100 miles of sewer (797 gallons) is significantly below what is typically found in other municipalities of comparable size. The reported peak flow to the WWTP is 20 MGD. This indicates that a significant amount of Inflow and Infiltration (I/I) is entering the WCTS. The City has staff that routinely clean the WCTS and conduct point repairs. They are able to conduct a full preventative maintenance cleaning of the entire system in approximately two years.

B. Management Interview

The EPA met with representatives of the City on December 18th, 2014, at the Utilities' Office. Topics of discussion during the meeting included the use and documentation of any MOM programs including Fats, Oil, and Grease (FOG) Control, Root Control, Capacity Assurance, Preventive Maintenance and Inspections, Emergency Response, Pump Station Back-up Power, and reporting procedures. The EPA discussed concerns relating to SSOs caused by grease build–up with the representatives and inquired about each program listed above to determine whether a formal or non-formal (not in writing) program existed to manage various maintenance and operations needs of the WCTS.

A review of the SSO data submitted to EPA under the CWA Section 308 information request combined with this CEI, forms the basis for the recommendations and conclusion outlined in this report. In general, City has limited written operating procedures for any of the MOM programs that the EPA recommends; however, work required in several MOM program areas is being done by City staff without having a written document.

C. Site Inspection

The EPA performed an on-site inspection of various points in the WCTS. Several sites were chosen based on their SSO history. The EPA inspected several manholes and pump stations as well as the site of the largest SSOs in the last 3 years.

Figure 1: Renovated PS control panel (Left); New wet-well and submersible pumps (Right).

VI. Recommendations and Conclusion

A. Recommendations

The EPA noted several preventive maintenance procedures the City is utilizing that are in keeping with best management practices to operate and maintain the system; however, the EPA recommends that City develop formal written programs for these preventive

maintenance procedures and programs. Developing formal written programs will aid in refining these programs, which should increase efficiency of the programs and provide guidance for the implementation of these programs that can be passed down to the next maintenance generation.

MOM program development guidance documents can be found on EPA, Region 4's website at http://www.epa.gov/region4/water/wpeb/momproject/.

Recommended MOM programs include:

a. Root Control Program

The EPA recommends that the City develop documents that outline procedures and provide guidance on how to manage and reduce root growth and intrusion into the WCTS. In developing this program, the City should consider the various best practices currently being used to manage root intrusion.
The City does not currently use chemical root control. Root intrusion is mainly controlled by cutting (mechanical) and rodding during cleaning.

b. Preventive Maintenance and Inspection Programs

The EPA recommends that the City develop formal written MOM Programs with an aggressive Preventive Maintenance and Inspection Program that defines goals for cleaning and inspection activities and pump station preventive maintenance activity, including:

A **Gravity Line Preventive Maintenance Program**. The Gravity Line Preventive Maintenance Program should include the following components: 1) blockage abatement mechanisms (including both hydraulic and mechanical cleaning); 2) root control mechanisms; 3) debris control mechanisms, and 4) manhole preventive maintenance procedures. This program should include the following activities: 1) identification of, and provision for, all personnel and equipment needed; 2) determination of the frequency; 3) establishment of procedures; 4) establishment of priorities for scheduling; 5) the use of standard forms; 6) establishment of record keeping requirements; 7) establishment of performance measures; and 8) integration of all data collected under the program with other information management systems.

A **Continuing Sewer System Assessment Program (CSSAP)**. The CSSAP should establish procedures for setting priorities and schedules for undertaking the WCTS assessment including: 1) corrosion defect identification, 2) routine manhole inspections, 3) flow monitoring, 4) CCTV activities, 5) gravity system defect analysis, 6) smoke testing, and 7) pump station performance and adequacy analysis. The CSSAP should provide for the assessment of at least ten percent (10%) of the WCTS on average per year and establish priorities and schedules

taking into consideration the nature and extent of customer complaints; flow monitoring; location and cause of SSOs and WCTS deficiencies; any remediation work already ongoing; pump station run times; field crew work orders; any preliminary sewer assessments, such as flow monitoring results; community input; and any other relevant information.

An **Infrastructure Rehabilitation Program (IRP)**. The IRP should establish procedures for setting priorities and schedules for undertaking rehabilitation of the WCTS. The IRP should address Infiltration/Inflow (I/I), structural issues in the WCTS, and the other conditions causing SSOs, with the goal of eliminating future SSOs. The IRP should take into account all previous information the City has gathered including any information gathered pursuant to the CSSAP. The IRP should also establish standard procedures to analyze the effectiveness of completed rehabilitation projects.

A **Pump Station Operations and Preventive Maintenance Program**. The Pump Station Operation and Preventive Maintenance Program should include or address the following items/components described below:

i. Pump station operations at pump stations that are to be conducted on a routine, scheduled basis. The program should define the standard pump station operating procedures to be followed at each pump station such as reading and recording information from the elapsed time meters, recording information from the pump start counters, observing wet well conditions and grease accumulation, checking and re-setting, as necessary to improve system performance, wet well set points, checking and recording system pressure, checking SCADA (or equivalent system) components, checking alarms and stand-by power and identifying maintenance needs.

ii. Emergency pump station operations procedures. The program should address pump station operations at pump stations that are to be conducted as a result of equipment failure or loss of electrical power. The program should define the emergency pump station operating procedures to be followed at each pump station such as calling for emergency maintenance, initiating stand-by power by bringing in portable generators or initiating portable pump operations for pump around.

iii. The program should establish schedules, routes, priorities, standard forms and reporting procedures and establish minimum acceptable performance measures and condition grading criteria.

Preventive Maintenance and Inspection Programs can have a significant positive impact on the future condition of the WCTS. A properly implemented Preventive Maintenance and Inspection Program may prevent a massive outlay of expenses needed to repair or replace parts of the system that the City personnel 'did not see' failing due to the lack of prevention. Relatively small preventive maintenance

expenses now can save the City larger repair expenses in the future.

c. Sewer Overflow Response Plan (SORP)

The EPA recommends that the City expand its SORP using the guidelines provided below that will establish timely and effective methods and means of responding to, cleaning up, and/or minimizing the impact of SSOs and building back-ups; establish procedures to timely report of the time, date, location, volume, cause, impact, and other pertinent information of all SSOs and building back-ups to the appropriate regulatory agencies; and notification methods to the potentially impacted public. The SORP should have the following components:

i. The SORP should provide procedures for orally reporting to EPD the location of any SSO by street address or any other appropriate method (i.e., latitude-longitude) within twenty-four (24) hours of the time the City first becomes aware of the SSO.

ii. The SORP should provide procedures for written reporting to EPD within five (5) days of the time the City first becomes aware of the SSO. At a minimum, a written report should contain the following:

a. Location of the SSO by street address, or any other appropriate method (i.e., latitude-longitude).

b. Estimated date and time when the SSO began and stopped, or if still active, the anticipated time to stop the SSO.

c. Steps taken to respond to the SSO.

d. Ultimate destination of the SSO, such surface waterbody (by name), if applicable, storm drain leading to surface waterbody (by name), dry land, building, etc.

e. An estimate of the volume (in gallons) of sewage discharged.

f. Description of the sewer system component from which the SSO was released (ie., manhole, crack in pipe, pump station wet well, etc…).

g. Estimate of the SSO's impact on public health and water quality in the receiving water body.

h. Cause or suspected cause of the SSO.

i. The date of the last SSO at the same location within the past five years.

j. Steps taken or to be taken to reduce, eliminate, and prevent recurrence of

the SSO with a schedule of major milestones for those steps.

k. Report of all notifications to the public and other agencies or departments.

iii. The SORP should provide procedures for maintenance of records for at least five (5) years from the date of an SSO, including all written and/or electronic documents including but not limited to: written reports to EPD; field crew notes, work orders, pictures, response times and corrective actions taken; records documenting steps that have been and will be taken to prevent the SSO from recurring, including work order records associated with investigation and repair activities; and a list and description of complaints from customers or others regarding an SSO.

iv. The SORP should establish procedures for identifying the cause of an SSO, for identifying the extent of potential threats to human health or the environment from the SSO, and for quantifying the volume and duration of the SSO.

v. The SORP should provide procedures for responding to SSOs in a timely manner to minimize the environmental impact and potential human health risk, and should include, but not be limited to, the following:

a. A detailed description of the procedures to immediately provide notice to the public that may be impacted by the SSO (through the local news media or other means including without limitation signs or barricades to restrict access).

b. A detailed description of the procedures for ensuring that the City is made aware of all SSOs as expeditiously as possible, and the responsibilities of employees (by position) charged with responding to SSOs.

c. A detailed description of the procedures to provide notice to appropriate local agencies/authorities.

d. A detailed description of the procedures (including response standard operating procedures) to minimize the volume of untreated wastewater discharged at an SSO location.

e. A detailed description of pump station-specific emergency procedures, bypass/ pump-around strategies, and estimated storage capacity (i.e., maximum volume of sewage that can be stored in the event of a pump station failure or repair without causing an SSO and estimated time during which sewage can be stored before an SSO will occur).

f. In the event that a repair may cause or lengthen the time of an SSO, a

detailed procedure for determining when additional storage or pump around will be needed.

g. A detailed plan for cleaning up all SSOs completely and expeditiously.

h. A detailed plan describing the standard operating procedures to be followed by the City personnel in responding to building backups, including:

i. Methods for communicating with customers about how to report building backups and how to obtain clean-up.

ii. Response to building backups, including timeframe for responses, measures to be taken to clean up building backups caused by conditions in WCTS, procedures to disinfect and/or remove potentially contaminated items (ie., wet vacuuming, wiping floors and walls with disinfectant, flushing out and disinfecting plumbing fixtures, carpet cleaning or replacement), procedures to correct or repair conditions in the sewer system causing or contributing to the building backup, and the follow-up process to insure adequacy of cleanup.

iii. Resources to correct or repair the condition causing or contributing to the building backup.

iv. The process a customer may follow to dispute a determination by the City personnel that a wastewater backup into a building is caused by a blockage or other malfunction of a private lateral, and therefore is not a building backup.

vi. The SORP should provide procedures for providing adequate training necessary for the City employees, contractors, and personnel of other affected agencies to effectively implement the SORP. The SORP should provide training guidelines to ensure adequate response training is provided to management and field personnel responsible for responding to SSOs. The SORP should provide procedures for adequate training to response personnel for estimating volumes from SSOs.

vii. The City should establish procedures for remedying the cause of an SSO. Standard repairs for typical SSO causes should be identified, as should the resources needed and available for such repairs. Procedures for diverting flow around blockages or line failures should be included, as should procedures for minimizing human contact with sewage. Standard containment procedures for typical SSOs should be identified.

viii. The City should identify and include in the SORP a list of those SSO locations within the WCTS that have been recorded as overflowing more than once in a 12 month period and those locations at which an SSO is

likely to occur first in the event of pump station failure for each pump station. The SORP should provide procedures for establishing routine inspection routes to be performed after each rain event. The inspection routes should include all SSO locations identified as having occurred more than once in a 12 month period, and all pump stations that are not monitored at a central location via remote monitoring devices.

ix. The City should ensure all SSOs are thoroughly documented and tracked by location, date, and volume.

B. Conclusion

The facility's personnel appear knowledgeable about the operation and maintenance of the system; however, some of the deficiencies noted above are of concern. In particular, the City does not have a written SORP or proper documentation for several of the preventative maintenance program they conduct. The City's use of internal staff to conduct I/I related point repairs and analysis is commendable. The high peaking factor at the WWTP highlights the inadequacies noted in managing I/I but has not resulted in major SSOs. This is likely due to the reduced dry weather flows to the WWTP resulting from the closure of a few large industries. This deficiency in controlling I/I highlights the need for improved MOM programs as well as the completion of significant WCTS infrastructure improvements.